

CLAIMS

Sub B2

1 Ultra high molecular weight polyethylene
5 molded articles having molecular orientation or crystal
orientation.

Sub B2

10 2. The molded articles of Claim 1, wherein the ultra high molecular weight polyethylene having molecular orientation or crystal orientation is crosslinked slightly.

Sub D2

15 3. The molded articles of Claim 1 or 2, wherein a melting point of the ultra high molecular weight polyethylene molded article is 135° to 155°C.

Sub D2

20 4. Artificial joints comprising the molded article of any one of Claims 1 to 3.

Sub B3

25 5. A method for producing an ultra high molecular weight polyethylene molded article having molecular orientation or crystal orientation, wherein the ultra high molecular weight polyethylene molded article is crosslinked slightly by irradiating a high energy ray and introducing a very small amount of crosslinking points into molecular chains, and the crosslinked ultra high molecular weight polyethylene molded article is compression-deformed after heating up to a compression deformable temperature and then cooled with keeping the deformed state.

Sub D4

30 6. The method of Claim 5, wherein the high energy ray is a radioactive ray and a dose of the irradiation is 0.01 to 5.0 MR.

Sub D5

35 7. The method of Claim 5 or 6, wherein the compression-deformable temperature is a temperature in the range of a melting point of the crosslinked ultra high molecular weight polyethylene minus 50°C to the melting

point plus 80°C.

sub J6 5 8. The method of ~~Claim 5, 6 or 7~~ wherein a weight-average molecular weight of the ultra high molecular weight polyethylene before irradiation is 2 to 8 million.

Claim 5 or 6

add B5 >

add C4 >

add E1 >